

OHIO DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF RECLAMATION

ATTACHMENT 20  
(SEDIMENTATION POND/IMPOUNDMENT DATA SHEET)

Applicant's Name American Energy Corporation Pond # 12

Type of impoundment Excavated Permanent            Temporary X

1. POND DRAINAGE AREA DATA:

- a) Drainage area 7.69 acres
- b) Disturbed area 3.20 acres
- c) Ave. land slope 20 %
- d) Hydrologic soil group C
- e) Hydraulic length 1645 ft.
- f) Cover/condition of the undisturbed area Pasture/Fair

2. DESIGN STORM CRITERIA:

a) Method:

- 1) Design method (s) including computer programs: SEDCAD 4.0
- 2) SCS curve number various (see run sheets)

| b) Rainfall Amount/Peak Flow             | Rainfall, in.     | Peak flow, cfs.   |
|--|-------------------|-------------------|
| 1) 10 year, 24 hour =                    | <u>3.7</u>        | <u>15.8</u>       |
| 2) 25 year, 24 hour =                    | <u>4.2</u>        | <u>18.9</u>       |
| 3) 50 year, 6 hour =<br>(if permanent)   | <u>          </u> | <u>          </u> |
| 4) 100 year, 6 hour =<br>(if 20/20 size) | <u>          </u> | <u>          </u> |

3. POND SIZE:

a) Dimensions: **N/A Excavated Pond**

- 1) Dam height            ft.
- 2) Dam width            ft. (MIN)
- 3) Dam length            ft.
- 4) Dam downstream slope            % (MAX)
- 5) Dam upstream slope            % (MAX)
- 6) Core length            ft.            ft.            ft.

- b) Sediment storage volume 1.47 ac.ft. is provided below the 991.5 foot elevation.

| c) Stage/Area Data:           | Elevation<br>ft. | Surface Area<br>ac. | Volume<br>ac.-ft. |
|-------------------------------|------------------|---------------------|-------------------|
| 1) Bottom of pond             | <u>988.0</u>     | <u>0.34</u>         | <u>0</u>          |
| 2) Streambed at upstream toe: | <u>N/A</u>       | <u>N/A</u>          | <u>N/A</u>        |
| 3) Principal spillway inlet:  | <u>N/A</u>       | <u>N/A</u>          | <u>N/A</u>        |
| 4) Exit Channel Crest:        | <u>991.5</u>     | <u>0.48</u>         | <u>1.47</u>       |
| 5) Top of embankment:         | <u>994.0</u>     | <u>0.56</u>         | <u>2.77</u>       |

4. PRINCIPAL SPILLWAY: N/A
- a) Pipe length \_\_\_\_\_ ft.
  - b) Pipe diameter \_\_\_\_\_ in.
  - c) Pipe slope \_\_\_\_\_ %
  - d) Riser diameter \_\_\_\_\_ in.
  - e) Riser height \_\_\_\_\_ ft.
  - f) Type of pipe \_\_\_\_\_
  - g) Number of anti-seep collars \_\_\_\_\_; spacing along pipe \_\_\_\_\_ ft.
  - h) Does the design include a trash rack? \_\_\_\_\_ Yes, \_\_\_\_\_ No.
  - i) Does the design include an anti-vortex device? \_\_\_\_\_ Yes, \_\_\_\_\_ No.
5. EMERGENCY SPILLWAY/EXIT CHANNEL:
- a) Base width 12 ft.
  - b) Design flow depth 0.3 ft.      Depth in level section 0.8 ft.
  - c) Exit slope 27.6 %
  - d) Exit velocity 5.3 fps
  - e) Channel lining Rock Riprap
  - f) Side slopes 2:1
  - g) Freeboard 1.7 ft.
  - h) Entrance slope 50.0 %
  - i) Length of level section 20 ft.
6. The minimum static factor of safety for this impoundment is 1.5
7. Provide as an addendum to this attachment a detailed plan view or 2 cross sections of the impoundment.
8. COMMENTS
9. Is this an MSHA structure? \_\_\_\_\_ Yes, X No. If "yes," provide the MSHA ID. number if one has been assigned \_\_\_\_\_.
10. If this is to be retained as a permanent impoundment, submit an addendum to this attachment demonstrating compliance with rule 1501:13-9-04(H) (2) of the Administrative Code.
11. I hereby certify that this impoundment is designed to comply with the applicable requirements of rule 1501:13-9-04 of the Administrative Code using current, prudent engineering practices.

Signature

*William J. Siplivy*

Date

10 July 2002

P.E. SEAL

